# ILLINOIS COMMERCE COMMISSION ICC DOCKET NO. 07-0539

REBUTTAL TESTIMONY

OF

VAL R. JENSEN

**Submitted On Behalf** 

Of

CENTRAL ILLINOIS LIGHT COMPANY d/b/a AmerenCILCO,

CENTRAL ILLINOIS PUBLIC SERVICE COMPANY d/b/a AmerenCIPS, and

ILLINOIS POWER COMPANY d/b/a AmerenIP

(The Ameren Illinois Utilities)

December 21, 2007

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# ILLINOIS COMMERCE COMMISSION

# DIRECT TESTIMONY

OF

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# CENTRAL ILLINOIS PUBLIC SERVICE COMPANY d/b/a AmerenCIPS and

# ILLINOIS POWER COMPANY d/b/a AmerenIP

1	I.	INTRODUCTION
2		A. Witness Identification
3	Q.	Please state your name.
4	A.	My name is Val R. Jensen.
5	Q.	Are you the same Val R. Jensen who submitted prefiled direct testimony on
6		behalf of the Ameren Illinois Utilities?
7	A.	Yes.
8		B. <u>Purpose and Scope</u>
9	Q.	What is the purpose of your rebuttal testimony in this proceeding?
0	A.	The purpose of my testimony is to respond to and discuss proposals submitted in
1		the direct testimony of other parties regarding the Ameren Illinois Utilities'
2		Energy Efficiency and Demand Response Plan. Specifically, I respond to the

13		direct testimony of the Staff of the Illinois Commerce Commission ("Staff"), the
14		Attorney General of Illinois ("AG"), the Citizens Utility Board ("CUB"), the
15		Environmental Law and Policy Center ("ELPC"). Ameren Illinois Utilities'
16		witnesses Stan E. Ogden, Richard A. Voytas and Leonard M. Jones are
17		concurrently submitting rebuttal testimony as well.
18		C. <u>Identification of Exhibits</u>
19	Q.	Will you be sponsoring any exhibits with your rebuttal testimony?
20	A.	Yes, I am attaching and sponsoring the following exhibits:
21		<ul> <li>Ameren Ex. 9.1 – Corrected Deemed Tables</li> </ul>
22		• Ameren Ex. 9.2 – Residential Direct Load Control
23		• Ameren Ex. 9.3 – Ameren Plan Revisions
24	II.	DISCUSSION OF STAFF AND INTERVENOR DIRECT TESTIMONY
25		A. <u>Discussion of Testimony by Staff Witnesses</u>
26	Q.	Did you review the direct testimony of Staff Witness Richard Zuraski labeled
27		as ICC Staff Exhibit 1.0?
28	A.	Yes I did.
29	Q.	Do you agree with his recommendations?
30	A.	Mr. Zuraski presents a broad review of the Ameren Illinois Utilities' filing in his
31		testimony. I address two aspects of Mr. Zuraski's testimony. The first is his
32		conclusion that the energy savings calculations contain a flaw related to Energy
33		Star transformers (ICC Staff Exhibit 1.0, lines 390 through 401). Second, Mr.
34		Zuraski has recommended that the Commission not adopt the Ameren Illinois

35		Utilities' proposed deemed savings and net-to-gross values. While I believe that
36		Mr. Zuraski raises some valid concerns, I continue to believe that the Commission
37		should adopt proposed deemed values. I have provided an updated table of
38		proposed deemed lighting savings values that I believe address Mr. Zuraski's
39		issue with the calculation of these values.
40	Q.	Please explain Mr. Zuraski's conclusion that the energy savings calculations
41		contain a flaw related to Energy Star transformers.
42 43	A.	Beginning at line 392 of his testimony, Mr. Zuraski notes, "The Company's
44		workbook contains a flaw that assigns a zero value for the avoided costs
45		associated with [Energy Star Transformers]. The workbook's flaw would actually
46		affect any measure with an assumed useful life greater than 21 years. However,
47		since "Energy Star Transformers" (with useful lives of 25 years) was the only
48		measure in the file with an assumed useful life greater than 21, the flaw affected
49		only the computations for this one measure."
50		Mr. Zuraski is correct. "AmerenlL_Program Model_11.13.07_FROZEN-C&P-
51		.xls" did contain an energy savings computation error related to the Energy Star
52		Transformers measure. The error occurred because the measure's life was greater
53		than 21 years. The error was confined to this measure as all other measures had a
54		life of 20 years or less. The effect of this measure is negligible; it would increase
55		first year energy savings in the C&I Custom program by less than one-tenth of

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one percent (0.07%) and would increase the program's first year budget by about

58	Q.	Please explain Mr. Zuraski's concerns related to the deeming of certain
59		measure savings values and net-to-gross ratios.
60	A.	Mr. Zuraski raises several issues. First, he notes that when he attempted to
61		perform the calculations outlined in my direct testimony related to the deemed
62		savings values for certain lighting measures, he obtained different results than
63		shown in my direct testimony. Specifically, he references Table 7 from my direct
64		testimony. Staff also raised this issue in a data request. Indeed, the calculations
65		had been performed incorrectly. In response to Staff data request ED 2.05, the
66		Company provided a corrected Table 7 and a corrected Table 8, which I believe
67		address this issue. I have included those tables as Exhibit 9.1 to my testimony.
68	Q.	What additional issues did Mr. Zuraski raise with respect to deeming?
69	A.	The second issue has to do with the Ameren Illinois Utilities' request that the
70		Commission deem certain net-to-gross ratios for purposes of future evaluations of
71		the Company's programs. Mr. Zuraski is asked, at line 626 of his testimony, if he
72		identified any inaccuracies with the deemed values within Table 9 of my direct
73		testimony. His response to the question was "yes". Mr. Zuraski identifies some
74		important issues with respect to the deeming of net-to-gross ratios, which I
75		address below. However, I do not believe that his testimony shows the proposed
76		deemed net-to-gross values presented in my testimony are in error.
77	Q.	What issues does Mr. Zuraski raise with respect to deeming the net-to-gross
78		ratio values you propose?
79	A.	Mr. Zuraski conveys a suspicion that, since many of the proposed net-to-gross

values have a value of 0.8, the values are "more of a guesstimate than the result of

years of empirical study" (Staff Exhibit 1.0 at line 631). He reviewed the source of the values, which is the California Energy Efficiency Policy Manual, and notes that the 0.8 net-to-gross values recommended by the Ameren Illinois Utilities are considered "default" values by the California Public Utilities Commission ("CPUC"), which developed the manual. He notes that he can find no explanation of the basis for these values. Because of this concern with the unknown basis for these values, and because he does not believe it appropriate under any circumstance to deem such values in a planning docket, he recommends the Commission not adopt the Ameren Illinois Utilities' proposal.

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- Q. Do you agree with Mr. Zuraski's recommendation that the Commission not
   deem the Company'
- A. No. I continue to believe that it is appropriate and sound for the Commission to
  deem these values for purposes of the evaluation of the Company's programs, at
  least initially. If changes to these values are later changed based on the
  recommendation by the Company's evaluation contractor or another party, the
  changes should apply on a going-forward basis only.
- 97 Q. Why do you disagree with Mr. Zuraski's recommendation?
- 98 A. First, I believe that Mr. Zuraski has provided a thoughtful and very clear review
  99 of the issues. And he has not ruled out deeming net-to-gross values per se. The
  100 problem is simply this: the Ameren Illinois Utilities' are embarking on what for
  101 them is a very aggressive energy efficiency initiative. It has very explicit goals to
  102 meet and faces very clear consequences if it does not meet those goals. It has
  103 designed a set of programs that I believe are sound and give the Ameren Illinois

Utilities a very high probability of meeting these goals if the programs are wellexecuted. Yet even if the Ameren Illinois Utilities succeed in achieving the participation levels believed necessary to meet targets, even if they execute program designs that stakeholders agree are sound, and even if the gross savings realized exceed the targets required, the Ameren Illinois Utilities can still be found to have missed their goals simply by virtue of an evaluator, after the fact, arriving at an estimate of a net-to-gross ratio that is below 0.8. This estimate inevitably will be based on limited survey research due to budget limitations and limited program experience. And there is no universally accepted approach to answering the question of whether a customer would have taken an action in the absence of the incentive offered by the Ameren Illinois Utilities. The answer arrived at by the evaluator will be captive to precisely how and when respondents are asked questions, and to potential bias, in that consumers have been shown to answer questions in a way that corresponds to what they think the right answer is. There is a very real risk that the Ameren Illinois Utilities could do everything right in designing and implementing their programs and still be found to have failed simply based on a single net-to-gross study that inevitably will raise its own methodological concerns. The 0.8 value for the net-to-gross ratios that the Company proposes be deemed for

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The 0.8 value for the net-to-gross ratios that the Company proposes be deemed for most programs is in fact the default value used in California, and the CPUC recognizes that these will be adjusted as actual evaluations take place. They are not, however, arbitrary in the sense that they come out of thin air. They are based on review and discussion of evaluation findings for hundreds of programs over

many years, and the CPUC has determined that these values are reasonable. If
one looks at the net-to-gross table Mr. Zuraski presents after line 658 in his
testimony, one can see that the 0.8 number is not some wild guess; it is in fact
very much in line with the net-to-gross ratios specified for a variety of programs.
The 0.8 value was used for the Ameren Illinois Utilities' analysis because, in most
cases, the Ameren Illinois Utilities' programs did not perfectly match the more
specific programs listed on this table. All that the Ameren Illinois Utilities are
recommending is that these be the values initially adopted by the Commission for
evaluation purposes. The Ameren Illinois Utilities do not oppose further studies,
which could very well yield different numbers, and they do not oppose then
adopting those numbers as deemed values going forward. But the Ameren Illinois
Utilities ask that the Commission not subject them to the risk that even though
they might succeed by all other measures, they can still fail to meet their goals
simply because an evaluator conducts a study that purports to show the "actual"
net-to-gross value was less than the Ameren Illinois Utilities have proposed.
This recommendation is reinforced by two final points. First, the final evaluation
of the Ameren Illinois Utilities' programs – the final determination of whether
they have met their goals - will not be complete until after the first three-year
cycle is well over. That is simply the way evaluation works. Thus, if the
evaluator should conclude that the "actual" net-to-gross number is lower than the
Ameren Illinois Utilities propose, they have no way to make up any shortfall. In
effect, to minimize the risk that the Ameren Illinois Utilities will not meet their
targets due to an adverse net-to-cross finding, they would need to spend and

acquire more savings than they otherwise might have to. That, however, is not necessarily the efficient or desired solution. Second, the Ameren Illinois Utilities have welcomed a collaborative process. Parties will have multiple opportunities to review program design and implementation and to make recommendations to design and run programs in a way designed to maximize net-to-gross ratios. However, without the deeming of net-to-gross ratios, the Ameren Illinois Utilities could accept stakeholder recommendations for maximizing net-to-gross ratios, still be subject to an adverse evaluation and still have no recourse.

# Q. Do you have any further concerns with Mr. Zuraski's discussion of the deeming issue?

A.

I have one clarification and one additional concern. Mr. Zuraski very clearly defines the elements of a net-to-gross ratio as including both free rider and spillover effects. I believe it is very important that this definition be explicitly recognized by the Commission. It can sometimes be the case that evaluators make what are portrayed as net-to-gross adjustments of program savings but actually estimate only free riders. This is methodologically incorrect and will result in an estimate of net savings lower than they in fact are. My remaining concern has to do with Mr. Zuraski's recommendation that neither savings values nor net-to-gross ratio values ever be deemed in a planning docket. The Commission should reject that recommendation. To accept his recommendation, the Commission must conclude that it cannot benefit from the information and insight Mr. Zuraski acknowledges will be acquired by parties as this process moves forward.

173		B. <u>Discussion of Testimony by AG Witnesses</u>
174	Q.	Did you review the direct testimony of AG Witness Mosenthal, labeled as AD
175		Exhibit 1.0?
176	A.	Yes I did.
177	Q.	Do you agree with his recommendations?
178	A.	Not all of them. Mr. Mosenthal makes recommendations on the following
179		subjects: (1) the need for an effective independent collaborative process that
180		includes all relevant stakeholders to resolve program design, implementation and
181		evaluation issues and monitor and verify performance; (2) the portfolio of
182		proposed programs, and the need to effectively coordinate between three program
183		administrators and potentially multiple implementation contractors; (3)
184		monitoring and evaluation, including the issue of deeming savings; (4) rate
185		impacts and spending caps; and (5) the use of banking efficiency savings in
186		excess of goals in one year to reduce the future years goals. Other witnesses for
187		the Ameren Illinois Utilities will address his recommendations related to
188		recommendations (1), (4) and (5). With respect to his other recommendations, I
189		generally agreed in part with many of his recommendations, but believe others are
190		without basis or would adversely affect the the Ameren Illinois Utilities' ability to
191		successfully implement their plan. I address each of these below.
192	Q.	What are Mr. Mosenthal's recommendations with respect to the Ameren
193		Illinois Utilities' proposed portfolio of programs?
194	A.	Mr. Mosenthal makes several sets of recommendations. He argues that programs
195		should be consistent throughout the state as much as possible, and that contractor

196		selection be organized around functional commonalities – such as HVAC,
197		lighting, etc. He also recommends that more resources should be focused on lost
198		opportunities. With regard to this second point, he argues that the Ameren Illinois
199		Utilities should:
200 201		<ul> <li>Drop room air conditioners from the appliance recycling program and consider dropping the entire program;</li> </ul>
202 203		<ul> <li>Plan to implement the Residential New HVAC programs by January 2009;</li> </ul>
204 205 206		<ul> <li>Immediately implement point of purchase promotions to encourage customer to select efficient appliances, possibly in lieu of the appliance recycling program;</li> </ul>
207 208		<ul> <li>Consider upstream buydowns rather than coupons for the Residential Lighting Program;</li> </ul>
209 210 211		<ul> <li>Implement the C&amp;I New Construction Program as soon as possible, but not limit participation to projects enrolled in the U.S. Green Building Council's LEED program;</li> </ul>
212		• Consider delaying the start of the Retrocommissioning Program; and
213 214		<ul> <li>Not promote technologies that represent baseline practice or are suboptimal.</li> </ul>
215	Q.	Do you agree with these recommendations?
216	A.	Not entirely. Mr. Mosenthal does note that he believes flexibility is important he
217		recommends that the ICC not direct the Ameren Illinois Utilities to specific
218		implementation methods or design details. (AG Exhibit 1.0 at 8) I agree with this
219		point. As he recognizes, the program designs proposed by the Ameren Illinois
220		Utilities are initial designs that most likely will be modified to greater or lesser
221		extents based on discussions with stakeholders and implementation contractors.
222		To the extent that his recommendations above are advisory as opposed to
223		recommendations for the Commission to consider in an order, these are
224		reasonable points to explore. However, I do have several specific concerns with

225	several recommendations and do not believe that the Commission should adopt
226	them.

## Q. With which recommendations do you disagree and why?

A.

First, as a point of clarification, it is important to note that Mr. Mosenthal attempts to address the Ameren Illinois Utilities and the Commonwealth Edison plans within a single piece of testimony. This leads in some cases to recommendations that don't apply to the Ameren Illinois Utilities. For example, he recommends that the New HVAC Program element be in place by January 2009. The Ameren Illinois Utilities' Plan indicates that the program will launch in June 2008.

Second, I do not agree that contractor selection necessarily should be organized

Second, I do not agree that contractor selection necessarily should be organized around "functional commonalities." (AG Exhibit 1.0 at 14) To Mr. Mosenthal, this means that the Ameren Illinois Utilities should hire implementation contractors who deal with particular trades or distribution channels. The Ameren Illinois Utilities have proposed to organize contractor selection around markets (residential and business customers). There are a number of schools of thought about program design, each with strengths and weaknesses. I agree that coordination of HVAC or lighting contractors across relevant sectors might be helpful. However, the Ameren Illinois Utilities are interested in presenting comprehensive solutions to customers, and not in having multiple trade-based implementation contractors independently trying to achieve their contractual goals. I agree that, under the customer solutions umbrellas, it is very important to coordinate interaction with the trades. In any event, this is clearly a topic for

discussion among parties as the Ameren Illinois Utilities proceed with final program design.

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Third, Mr. Mosenthal argues that the Ameren Illinois Utilities should reverse their allocation of more resources to appliance recycling than new efficient appliances. While I agree that it is important to pursue lost opportunities, the Ameren Illinois Utilities are responsible for meeting specific savings targets. Quite simply, a program to incent customers to purchase more efficient appliances as those appliances are replaced cannot make a significant contribution to meeting early year targets. Appliance loads - aside from refrigerator loads - are relatively small contributors to total residential consumption, and the incremental savings to be gained from replacement of a standard efficiency refrigerator with an efficient refrigerator would be quite small given now high the federal efficiency standard is for refrigerators. A number of utilities no longer provide incentives for new efficient refrigerators for this reason. I would agree that second refrigerator pickup and recycling programs should not be a program option relied on for the long term. But even assuming a low net-to-gross ratio, refrigerator recycling programs often are quite cost-effective. Removing old second refrigerators from the market eliminates a significant residential load, and in my view it would be extremely unlikely that the Ameren Illinois Utilities could achieve a similar load reduction at a similar cost by providing incentives for more efficient dishwashers, washers, freezers, dehumidifiers and room air conditioners. I should note that he takes issue with the fact that the program would pick up refrigerators only if they were manufactured before 1993. The program's estimated energy savings for

retrigerators were based on an assumed in-service date of 1993 or before.
However, the program would not restrict pick-ups to only that vintage.
Fourth, as a general point related to the prior issue, Mr. Mosenthal argues that the
Ameren Illinois Utilities have favored short-lived measures such as CFLs and
appliance recycling, while ignoring longer-lived measures such as new efficient
appliance and all-electric home heating measures. I believe that is a mis-
characterization of the Plan and the analysis underlying it. These measures were
all examined by the Ameren Illinois Utilities and in fact are included in the Plan.
It is simply a fact that the incremental savings associated with appliances are
small. And the Ameren Illinois Utilities have designed a program to target all-
electric homes.
Fifth, Mr. Mosenthal argues that the Residential Lighting program element should
not use coupons, but instead should move to an upstream buy-down program.
Although Mr. Mosenthal only refers to ComEd at this section of his testimony, I
assume he directs it at the Ameren Illinois Utilities as well. I have no substantive
disagreement with his statements about the virtues of an upstream program, and,
in fact, the proposed program explicitly notes that the program design would be
patterned after the Change-a-Light promotions which have used buy-
downs/retailer discounts. However, what he does not mention, is that the net
verified savings associated with upstream programs can be much more difficult to
identify, and there can be a trade-off between program cost and program net
effectiveness

	Sixth, Mr. Mosenthal recommends that the Ameren Illinois Utilities not include
	T8 linear fluorescent lamps in its offering to commercial and industrial customers,
	as these represent a sub-optimal technology. He notes that standard T8s are
	"generally baseline practice in virtually all new C&I lighting installations." (AG
	Exhibit 1.0 at 25) I agree that standard T8s are no longer the most efficient
	lighting solution for replacement of T12 lamps. I do not agree that they should be
	disallowed from the program. Although clear baseline data is lacking, if the
	Ameren Illinois Utilities' service territory is like many, a significant portion of
	commercial and industrial lighting space is lit with T12s. Substantial savings
	could be realized by replacing these with standard T8s in retrofit situations.
	While I would recommend that the Ameren Illinois Utilities promote adoption of
	high performance T8s, there is no reason why the Ameren Illinois Utilities should
	not be able to incent a retrofit of T12 lighting with T8 lamps, so long as the
	incentive levels properly reflect the expected savings. The real lost opportunity is
	when a customer elects not to retrofit clearly inefficient lighting because he does
	not wish to install high performance T8s. As a practical matter, the Ameren
	Illinois Utilities' plan is based on analysis that shows that 70% of the linear
	fluorescent lamps installed will be High Performance T8s.
Q.	What are Mr. Mosenthal's recommendations with respect to the Ameren
ζ.	Illinois Utilities' proposed EM&V process?
Α.	Mr. Mosenthal acknowledges that it might be appropriate in some cases to deem

some "savings factors" (AG Exhibit 1.0 at page 27, lines 11 and 12). He also

agrees that deeming gross savings values for lighting measures is appropriate (AG

316	Exhibit 1.0 at 28, lines 14 and 15). He disagrees with the Ameren Illinois
317	Utilities' proposed approach to deeming net-to-gross ratios.

### Q. Do you agree with this recommendation?

I agree that the gross savings values for the lighting measures included in my direct testimony should be deemed. I disagree with Mr. Mosethal's recommendation that the Ameren Illinois Utilities' proposed net-to-gross ratios not be deemed.

# Q. Why do you disagree with his recommendation regarding net-to-gross

### ratios?

A.

A.

I believe that my rebuttal testimony on this issue as it was raised by Staff Witness Zuraski applies to Mr. Mosenthal's recommendation as well. Mr. Mosenthal presents a number of arguments as to why adoption of deemed net-to-gross ratio values or, the adoption of the values proposed by the Ameren Illinois Utilities, would be inappropriate. In particular he takes issue with the use of California net-to-gross values, arguing that net-to-gross ratios in California might be expected to be higher due a longer history of program activity. I believe that he is selective in his examples and, in fact, one could come up with plausible reasons why the values should be higher in Illinois than California, particularly as the Ameren Illinois Utilities benefit from the California experience and the input from their stakeholders. He notes that program design can affect the net-to-gross ratio, another important point with which I agree. But his arguments, while well-formed do not address the central issue that the estimation of net-to-gross ratios is an imprecise business subject to all manner of methodological flaws. The

Ameren Illinois Utilities' point is simply that they should not initially be exposed to what is truly a risk that cannot be mitigated. Mr. Mosenthal argues that the Ameren Illinois Utilities should be responsible for showing that they achieved real savings and not simply that they performed activities. I agree. However, a single point estimate of a net-to-gross ratio produced by an evaluator is hardly determinative of what is "real", and it is not helpful to receive that estimate after the programs have been completed. The Commission should recognize that evaluator-produced estimates of net-to-gross ratios often are disputed, and with good cause. There is sentiment among some in the evaluation community for doing away with net-to-gross estimates altogether given the methodological issues associated with them. And without too much searching one can find examples of net-to-gross estimates for the same program changing significantly from one evaluation to the next simply by virtue of the evaluator changing methodologies or as the result of a change in evaluators. I believe that it is both fair and reasonable to deem these net-to-gross values at last initially. As evaluation results emerge, parties can review them and determine if the initially deemed values should be changed. But the Ameren Illinois Utilities should not be penalized if this after-the-fact determination results in a lower net-to-gross estimate than is deemed, particularly, when the methods used to arrive at these estimates are so susceptible to methodological flaws.

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Q. Does Mr. Mosenthal offer an alternative to the Commission deeming these net-to-gross values, and do you agree?

361	A.	Yes. He recommends on pages 34 and 35 that the collaborative work out
362		appropriate net-to-gross values and, if appropriate, deem them. He acknowledges
363		that in some case, parties might wish to apply these deemed values only going
364		forward. I continue to believe that the position outlined in my direct testimony
365		and by the Ameren Illinois Utilities in their plan is the right approach at this time.

# C. Discussion of Testimony by CUB Witnesses

- Q. Did you review the direct testimony of CUB Witness Thomas, CUB Exhibit 1.0?
- 369 A. Yes I did.

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- 370 Q. Do you agree with his recommendations?
- A. My testimony only addresses Mr. Thomas' observation that program cost
  assumptions for the proposed residential direct load control program are unclear
  and that the proposed budget for the Ameren Illinois Utilities' direct load control
  program is inconsistent. Mr. Thomas correctly pointed out an inconsistency that
  resulted from a computational error by ICF. Mr. Thomas notes that, by his
  estimate the Ameren Illinois Utilities have under-budgeted costs in 2008 and
  over-budgeted in 2009 and 2010 (CUB Exhibit 1.0 at page 5).
- 378 Q. Please explain the nature of this error.
- 379 A. The incentive cost for the load control program is defined for purposes of the
  380 analysis as the sum of equipment costs and a customer rebate. The rebate is paid
  381 to the customer each year that customer participates, but the equipment cost is
  382 incurred only once for each customer. The error resulted from multiplying the

383		equipment costs by total program participants rather than by incremental
384		participants. Because non-incentive program costs were calculated as an assumed
385		25% of incentive costs, these programs costs similarly were over-stated.
386		Ameren Exhibit 9.2 is a revised program template that should replace the template
387		found on page 103 of Ameren Ex. 1.0. The budget numbers in this correct
388		template match, within several dollars, the budget that Mr. Thomas shows as the
389		result of his calculation in Table in his testimony. Ameren Exhibit 9.3 is a
390		summary of how these changes flow through the rest of the plan. In this Exhibit I
391		note where each change occurs in the Plan.
392	Q.	Please address Mr. Thomas' contention that the Ameren Illinois Utilities'
202		
393		cost estimates for the residential direct load control program are only
393		estimates.
	A.	
394	A.	estimates.
394 395	Α.	estimates.  Simply put, they are estimates, based generally on the costs that we had modeled
<ul><li>394</li><li>395</li><li>396</li></ul>	A.	estimates.  Simply put, they are estimates, based generally on the costs that we had modeled for the ComEd direct load control program. Our intent was to develop an
<ul><li>394</li><li>395</li><li>396</li><li>397</li></ul>	Α.	estimates.  Simply put, they are estimates, based generally on the costs that we had modeled for the ComEd direct load control program. Our intent was to develop an approximate budget, as was done with every other program, which enabled us to
394 395 396 397 398	Α.	estimates.  Simply put, they are estimates, based generally on the costs that we had modeled for the ComEd direct load control program. Our intent was to develop an approximate budget, as was done with every other program, which enabled us to develop what we considered a reasonable portfolio budget. I believe that the
<ul><li>394</li><li>395</li><li>396</li><li>397</li><li>398</li><li>399</li></ul>	Α.	estimates.  Simply put, they are estimates, based generally on the costs that we had modeled for the ComEd direct load control program. Our intent was to develop an approximate budget, as was done with every other program, which enabled us to develop what we considered a reasonable portfolio budget. I believe that the Ameren Illinois Utilities acknowledged that all programs will be subject to further
394 395 396 397 398 399 400	A.	estimates.  Simply put, they are estimates, based generally on the costs that we had modeled for the ComEd direct load control program. Our intent was to develop an approximate budget, as was done with every other program, which enabled us to develop what we considered a reasonable portfolio budget. I believe that the Ameren Illinois Utilities acknowledged that all programs will be subject to further detailed design at which time program budget estimates will be improved.
394 395 396 397 398 399 400 401	A.	estimates.  Simply put, they are estimates, based generally on the costs that we had modeled for the ComEd direct load control program. Our intent was to develop an approximate budget, as was done with every other program, which enabled us to develop what we considered a reasonable portfolio budget. I believe that the Ameren Illinois Utilities acknowledged that all programs will be subject to further detailed design at which time program budget estimates will be improved.  Unfortunately, the time allowed for the complete portfolio development process

1	D	Discussion	of T	Cestimony	hv	ELPC	Witnesses
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- 406 Q. Did you review the direct testimony of ELPC Witness Crandall, ELPC
- 407 **Exhibit 1.0?**
- 408 A. Yes I did.

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- 409 Q. Do you agree with his recommendations?
- I have some concerns. First, Mr. Crandall contends that the Ameren Illinois 410 A. Utilities' proposal to retain authority to dismiss the evaluation contractor, "is a 411 412 fatal flaw." (ELPC Exhibit 1.0 at 5). In my view it is anything but fatal and is, in fact, necessary unless the Commission itself elects to choose the contractor. 413 414 Second, Mr. Crandall takes issue with the Ameren Illinois Utilities' proposal to 415 retain authority to reallocate funds across the portfolio. Although I suspect that 416 his position is not, in fact, different than the Company's, I believe it is important 417 to clarify this issue. Third, Mr. Crandall recommends that accommodation be 418 made within the planning process and contracts with third party implementers to 419 avoid program interruptions. Fourth, Mr. Crandall recommends creation of a 420 uniform energy efficiency program that is easily identifiable to consumers 421 throughout the state. It appears that what he actually is calling for is a consistent statewide energy efficiency brand. While this uniform branding idea has merit in 422 concept, it does not rise to level of a requirement from the perspective of program 423 424 design or implementation. Finally, he recommends that the Residential Lighting 425 and Appliance, and new HVAC incentive program elements be ready to go as 426 soon as the Commission issues its order. That simply is impractical.

428		proposal to retain authority to dismiss the evaluation contractor, "is a fatal
429		flaw."
430	A.	Mr. Crandall raises a very reasonable point with which I agree, i.e. it is essential
431		for the independent evaluator to retain independence. His point is that if the
432		Ameren Illinois Utilities are allowed to unilaterally dismiss the evaluation
433		contractor, the crucial firewall between the evaluator and the evaluated is
434		breached. He specifically recommends that the Ameren Illinois Utilities'
435		proposal be rejected and that dismissing an EM&V contractor must only be done
436		for just cause and with the prior consent of the ICC or the unanimous consent of
437		several designated entities (Ameren, Com Ed, DCEO).

Please explain Mr. Crandall's contention that the Ameren Illinois Utilities'

## 438 Q. Do you agree with this recommendation?

Α.

O.

I cannot address the legal issue of the Ameren Illinois Utilities' authority under the Statute. However, to use Mr. Crandall's analogy of a bank firing its independent auditor, I would argue that if the bank determines that the auditor cannot perform basic accounting tasks, is overspending its budget, or is not delivering required reports, the bank would be imprudent if it did not fire the auditor. As Mr. Crandall notes, the Ameren Illinois Utilities request authority to dismiss the contractor "under the terms of the contracts signed with that contractor." (ELPC Exhibit 1.0 at 5) This means that if the contractor does not satisfy the terms of its contract with the Ameren Illinois Utilities, they must retain the right to dismiss the contractor. As I understand the Company's proposal, this is dismissal for cause which Mr. Crandall acknowledges is legitimate. I would

not disagree that if the Ameren Illinois Utilities hold an evaluation contract that is
supplying evaluation services to DCEO and ComEd, all parties ideally should
agree with a proposed dismissal. Moreover, the Company would certainly want
to discuss the issue with other parties as well, since a perception that a dismissal is
driven by dislike for results would certainly create a credibility issue. However, it
is a legal matter as to whether entities not formally a party to a contract can
exercise veto power over such a decision.

- Q. Please explain Mr. Crandall's issue with the Company's proposal to retain
   authority to reallocate funds across the portfolio.
  - A. Despite stating that he has concerns with the Ameren Illinois Utilities' request to be able to reallocate funds, it appears Mr. Crandall actually agrees with the Company. As he notes, "[i]t is appropriate to consider that the amounts assigned to each program be considered an operational budget. If a particular program performs better or worse than anticipated, then more or fewer dollars should be able to be allocated to that program, provided that the TRC for the program receiving additional funding continues to be greater than 1.0. Alternatively, if a program is getting a larger or smaller market response than anticipated, the utility should be able to adjust the incentive levels up or down as appropriate, again under the condition that the program still must meet the TRC test." (ELPC Exhibit 1.0 at 6) Mr. Voytas discusses this point further.

Q.	Please address Mr. Crandall's recommendation for creation of a uniform
	energy efficiency program that is easily identifiable to consumers throughout
	the state.

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It appears that what he actually is calling for is a consistent statewide energy efficiency brand that would be communicated via a statewide marketing campaign, and a shared website and call center. While this uniform branding idea has merit in concept, it does not rise to level of a requirement from the perspective of program design or implementation. What matters is motivating consumers to take action that will yield persistent energy savings. That message might be the same for a consumer in Carbondale as it is for a consumer in Lincoln Park or Peoria or it might not. I suspect that while program managers at PG&E might agree that Flex Your Power has helped build general consumer awareness around energy efficiency in California, it is not necessarily responsible for driving participation in PG&E programs. In fact, it can be confusing in the sense that Flex Your Power does not offer incentives, PG&E does; a customer cannot really participate in Flex Your Power. It is not clear to me, nor have I seen any evidence to suggest that a statewide marketing campaign, joint website and call center will boost participation and savings above what the utilities and DCEO can achieve on their own through well-executed outreach. Finally, a statewide brand is not inexpensive to build. That said, I do agree that is important that, particularly where markets are contiguous, messages be consistent and contribute to building consumer awareness of energy management options.

Q.	Please address Mr. Crandall's recommendation that the Residential Lighting
	and Appliance, and new HVAC incentive program elements be ready to go as
	soon as the Commission issues its order.

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It simply is not feasible to have these programs ready to go by February 15<sup>th</sup> unless the Ameren Illinois Utilities began actual detailed implementation planning and implementation services procurement months ago. It is my understanding that the Ameren Illinois Utilities intend to move ahead with contractor selection and implementation planning for the lighting and appliances program element as soon as the Commission issues a decision, but even so, the program will not be ready to launch until June 1. Further, if this program is not designed to fit within the stocking and promotional schedules of retailers, distributors and manufacturers it will fail. These stocking and promotional activities for the spring most likely were finalized months ago. HVAC programs tend to have their greatest participation in the lead-up to a cooling season (April, May and June). I do not believe that it is feasible to have this program ready by March, again because this program needs to be developed in consultation with HVAC dealers and distributors and it very likely is too late to accomplish that by the start of the 2008 HVAC buying season. Finally, I would note that the fact that other utilities have designed and implemented similar programs does not materially reduce the time it takes to launch the program. Timing is a function of how long it takes to issue an RFP, allow bidders time to respond, evaluate the bids, negotiate a contract, develop an implementation plan, finalize incentives, develop program collateral, and put in place an auditable system for rebate payments. This isn't a

# Ameren Ex. 9.0

516		process that necessarily takes six months. However, the fastest I have seen this
517		work from program conception to launch was two months and that did not include
518		time to procure the implementation contractors.
519	III.	CONCLUSION
520	Q.	Does this conclude your rebuttal testimony?
521	A.	Yes. It does.

# Corrected Table 7: Proposed Deemed Values

Target market	Base Technology	Efficient Technology	Efficient Technology Definition	Annual kWh savings	
All Residential	40W Incandescent	13 Watt Integral CFL	13 Watt < 800 Lumens - screw-in	23.1	
All Residential	60W Incandescent	13 Watt Integral CFL	13 Watt >=800 Lumens - screw-in	40.1	
All Residential	60W Incandescent	14 Watt Integral CFL	14 Watt - screw-in	39.3	
All Residential	60W Incandescent	15 Watt Integral CFL	15 Watt - screw-in	38.4	
All Residential	60W Incandescent	16 Watt Integral CFL	16 Watt - screw-in	37.6	
All Residential	60W Incandescent	18 Watt Integral CFL	18 Watt < 1,100 Lumens - screw-in	35.9	
All Residential	75W Incandescent	18 Watt Integral CFL	18 Watt >=1,100 Lumens - screw-in	48.7	
All Residential	75W Incandescent	19 Watt Integral CFL	19 Watt >=1,100 Lumens - screw-in	47.8	
All Residential	75W Incandescent	20 Watt Integral CFL	20 Watt - screw-in	47.0	
All Residential	100W Incandescent	23 Watt Integral CFL	23 Watt - screw-in	65.8	
All Residential	75W Incandescent	25 Watt Integral CFL	25 Watt <1,600 Lumens - screw-in	42.7	
All Residential	100W Incandescent	25 Watt Integral CFL	25 Watt >=1,600 Lumens - screw-in	64.1	
All Residential	75W Incandescent	26 Watt Integral CFL	26 Watt <1,600 Lumens - screw-in	41.9	
All Residential	100W Incandescent	26 Watt Integral CFL	26 Watt >=1,600 Lumens - screw-in	63.2	
All Residential	100W Incandescent	28 Watt Integral CFL	28 Watt - screw-in	61.5	
All Residential	100W Incandescent	30 Watt Integral CFL	30 Watt - screw-in	59.8	
All Residential	150W Incandescent	36 Watt Integral CFL	36 Watt - screw-in	97.4	
All Residential	150W Incandescent	40 Watt Integral CFL	40 Watt - screw-in	94.0	
Multi-family	75W Incandescent	18 Watt Integral CFL	18 Watt >=1,100 Lumens - screw-in	48.7	
Retail - Small	2 4' T12 34 watt lamps with magnetic ballast	1 4' T8 32 watt lamps with electronic ballast & reflector	1 4' T8 32 watt lamps	156.2	UPDATED
Retail - Small	2 8' T12 60 watt lamps with magnetic ballast	1 8' T8 59 watt lamps with electronic ballast & reflector	1 8' T8 59 watt lamps	220.2	UPDATED
Retail - Small	40W Incandescent	13 Watt Modular CFL	13 Watt < 800 Lumens - pin based	100.5	
Retail - Small	40W Incandescent	13 Watt Integral CFL	13 Watt < 800 Lumens - screw-in	100.5	
Retail - Small	60W Incandescent	13 Watt Modular CFL	13 Watt >=800 Lumens - pin based	175.0	
Retail - Small	60W Incandescent	13 Watt Integral CFL	13 Watt >=800 Lumens - screw-in	175.0	
Retail - Small	60W Incandescent	14 Watt Modular CFL	14 Watt - pin based	171.3	
Retail - Small	60W Incandescent	14 Watt Integral CFL	14 Watt - screw-in	171.3	
Retail - Small	60W Incandescent	15 Watt Modular CFL	15 Watt - pin based	167.6	
Retail - Small	60W Incandescent	15 Watt Integral CFL	15 Watt - screw-in	167.6	
Retail - Small	60W Incandescent	16 Watt Modular CFL	16 Watt - pin based	163.9	
Retail - Small	60W Incandescent	16 Watt Integral CFL	16 Watt - screw-in	163.9	
Retail - Small	60W Incandescent	18 Watt Modular CFL	18 Watt < 1,100 Lumens - pin based	156.4	
Retail - Small	60W Incandescent	18 Watt Integral CFL	18 Watt < 1,100 Lumens - screw-in	156.4	
Retail - Small	75W Incandescent	18 Watt Modular CFL	18 Watt >=1,100 Lumens - pin based	212.3	
Retail - Small	75W Incandescent	18 Watt Integral CFL	18 Watt >=1,100 Lumens - screw-in	212.3	
Retail - Small	75W Incandescent	19 Watt Modular CFL	19 Watt >=1,100 Lumens - pin based	208.5	
Retail - Small	75W Incandescent	19 Watt Integral CFL	19 Watt >=1,100 Lumens - screw-in	208.5	

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			,	i age z or v	,
Retail - Small	2 4' T12 34 watt lamps with magnetic ballast	2 4' Super T8 28 watt lamps with electronic ballast	2 4' Super T8 28 watt lamps	96.1	UPDATED
Retail - Small	2 4' T12 34 watt lamps with magnetic ballast	2 4' T8 32 watt lamps with electronic ballast	2 4' T8 32 watt lamps	56.1	UPDATED
Retail - Small	2 8' T12 60 watt lamps with magnetic ballast	2 8' Super T8 59 watt lamps with electronic ballast	2 8' Super T8 59 watt lamps	100.1	UPDATED
Retail - Small	2 8' T12 60 watt lamps with magnetic ballast	2 8' T8 59 watt lamps with electronic ballast	2 8' T8 59 watt lamps	56.1	UPDATED
Retail - Small	75W Incandescent	20 Watt Modular CFL	20 Watt - pin based	204.8	
Retail - Small	75W Incandescent	20 Watt Integral CFL	20 Watt - screw-in	204.8	
Retail - Small	100W Incandescent	23 Watt Modular CFL	23 Watt - pin based	286.7	
Retail - Small	100W Incandescent	23 Watt Integral CFL	23 Watt - screw-in	286.7	
Retail - Small	75W Incandescent	25 Watt Modular CFL	25 Watt <1,600 Lumens - pin based	186.2	
Retail - Small	75W Incandescent	25 Watt Integral CFL	25 Watt <1,600 Lumens - screw-in	186.2	
Retail - Small	100W Incandescent	25 Watt Modular CFL	25 Watt >=1,600 Lumens - pin based	279.3	
Retail - Small	100W Incandescent	25 Watt Integral CFL	25 Watt >=1,600 Lumens - screw-in	279.3	
Retail - Small	75W Incandescent	26 Watt Modular CFL	26 Watt <1,600 Lumens - pin based	182.5	
Retail - Small	75W Incandescent	26 Watt Integral CFL	26 Watt <1,600 Lumens - screw-in	182.5	
Retail - Small	100W Incandescent	26 Watt Modular CFL	26 Watt >=1,600 Lumens - pin based	275.6	
Retail - Small	100W Incandescent	26 Watt Integral CFL	26 Watt >=1,600 Lumens - screw-in	275.6	
Retail - Small	100W Incandescent	28 Watt Modular CFL	28 Watt - pin based	268.1	
Retail - Small	100W Incandescent	28 Watt Integral CFL	28 Watt - screw-in	268.1	
Retail - Small	120W Incandescent	30 Watt Modular CFL	30 Watt - pin based	335.2	
Retail - Small	100W Incandescent	30 Watt Integral CFL	30 Watt - screw-in	260.7	
Retail - Small	150W Incandescent	36 Watt Integral CFL	36 Watt - screw-in	424.5	
Retail - Small	120W Incandescent	40 Watt Modular CFL	40 Watt - pin based	297.9	
Retail - Small	150W Incandescent	40 Watt Integral CFL	40 Watt - screw-in	409.6	
Retail - Small	200W Incandescent	55 Watt Modular CFL	55 Watt - pin based	540.0	
Retail - Small	200W Incandescent	65 Watt Modular CFL	65 Watt - pin based	502.7	

# Corrected Table 8: Operating Hours

Sector	Technology	Subsector	Annual Operating Hours
Non-residential	CFL Lighting	Retail - Small	3,724
Non-residential	Non-CFL Lighting	Retail - Small	4,004
Residential	CFL Lighting	Residential	854

Ameren Ex. 9.1 ICC Docket No. 07-0539 EDiv 2.05 Attach Page 3 of 3

# Calculations for T-8 Measures

Target market	Base Technology	Efficient Technology	Efficient Technology Definition	Base Watts	Efficient Wafts*	Operating Hours	Total kWh saved = delta Watts * operating hours
Retail - Small	2 4' T12 34 watt lamps with magnetic ballast	1 4' T8 32 watt lamps with electronic ballast & reflector	1 4' T8 32 watt lamps	72	33	4004	156.2
Retail - Small	2 8' T12 60 watt lamps with magnetic ballast	18' T8 59 watt lamps with electronic ballast & reflector	1 8' T8 59 watt lamps	123	89	4004	220.2
Retail - Small	2 4' T12 34 watt lamps with magnetic ballast	2 4' Super T8 28 watt lamps with electronic ballast	2 4' Super T8 28 watt lamps	72	48	4004	96.1
Retail - Small	2 4' T12 34 watt lamps with magnetic ballast	2 4' T8 32 watt lamps with electronic ballast	2 4' T8 32 watt lamps	72	58	4004	56.1
Retail - Small	2 8' T12 60 watt lamps with magnetic ballast	2 8' Super T8 59 watt lamps with electronic ballast	2 8' Super T8 59 watt lamps	123	86	4004	100.1
Retail - Small	2 8' T12 60 watt lamps with magnetic ballast	2 8' T8 59 watt lamps with electronic ballast	2 8' T8 59 watt lamps	123	109	4004	56.1

\*Note: in the non-CFL calculations above, delta watts is not simply the difference in bulb wattage between base and efficient technologies. The ballasts themselves draw varying levels of power. Electronic ballasts use draw less power than magnetic ballasts, with power consumption based on the "ballast factor," which is lower for more efficient ballasts, higher for less efficient ones. A great number of lamp and ballast combinations can be evaluated, and the six that are included below are average savings that generally represent the numerous possible efficient upgrades that could be undertaken.

PROGRAM	Residential Direct Load Control
Objective	This program is designed to acquire peak demand reduction through fully-automated Direct Load Control of residential central air conditioners.
Target Market	Residential single family homes with Central Air Conditioners (AC). Residential multifamily homes could also be eligible if they singularly have control of and pay for electric service. Other electric appliances, such as hot water heaters and pool pumps could also be incorporated into the program.
Program Duration	June 2008 – May 2011.
Program Description	80% of the Ameren Illinois Utilities (The Company) residential customers are estimated to have a Central AC system. These systems typically account for half of a home's summer peak demand. Under this program, the Company provides free installation of a load control switch and a modest customer incentive for authorizing the Company to cycle the customer's air conditioner during times of high peak load.
Eligible Measures	Direct AC load control switch.
Implementation Strategy	This program will be implemented primarily by the Company with third party installation and marketing assistance. The Company will solicit participation primarily through bill inserts. When a participation request is received, the Company will route the job to its installation contractor; average time from order to install is estimated to be approximately one working month. The Company will then exercise control over the switch. The customer will be paid an incentive for agreeing to place the air conditioner under the Company's control for up to eight hours per season.
Exit Strategy	A program termination would be based on program cost-effectiveness falling below acceptable levels. Cost-effectiveness will be greatly affected by churn rate and acquisition cost. If an exit is warranted, market impacts will be slight since only participating end use customers are significantly affected by the program. Experience suggests that direct load control programs are scalable and so this program can be viewed to some extent as a hedge that can be grown or shrunk in response to the performance of other portfolio elements.
Marketing Strategy	Customers would be recruited using an annual direct mail bill insert campaign, with recruiting supported initially by a broader awareness-building campaign based largely on print media. The program should also be co-marketed with the efficiency programs aimed at central HVAC systems. A customer hit rate of between 7% and 10% is considered typical.
Incentive Strategy	Demand-response 1 kW \$170
Milestones	December 2007: Draft and distribute implementation vendor RFP February 2008: Commission approval
	February-April 2008: Final program design and installation contractor selection

April-May 2008: Prepare initial customer recruiting campaign

June 2008: Program launch

### EM&V Requirements

The key EM&V issue is verification of the load reduction, both in terms of the reduction per control point as well as the signal success rate which affects the average reduction across control points. The Company will work with the third party M&V contractor to design and execute appropriate analyses of a statistically valid set of sites to verify the per unit load reductions.

# Administrative Requirements

The start-up FTE requirements will range between 1 and 2 FTE to arrange for installation services, manage the development of control protocols and software, and prepare the initial marketing recruiting campaign. Steady-state requirements are approximately .5 to 1.0 FTE on an annual basis, although the requirements are concentrated during the annual recruiting and installation cycle. Participation by the Company's marketing and operations staffs will be required for start-up and ongoing implementation.

# Estimated Participation

Ricesee	ANI Institutions	1000 Institutions	
Demand-response 1 kW	3,090	6,194	9,409

# Estimated Budget

Budget Category	2008	2009	2010	Total
Total	\$656,639	\$756,114	\$876,760	\$2,289,513

# Savings Targets

<b></b>	<b>8466</b>	<b>CONTRACT</b>
Demand-response 1 kW	1 kW	1

### Total Savings (rounded to nearest MW):

J.Childe				
Year	2008	2009	2010	Total
Gross MW	3	6	9	19
Realization Rate	1.00	1.00	1.00	•
Net-to-Gross	0.95	0.95	0.95	
Net MW	3	6	9	18

Program Metrics The primary metric is demand reduction. Key secondary metrics include reduction per customer, churn rate and acquisition cost.

Costeffectiveness Total Resource Cost Test: 1.90

Revision 1

Executive Summary - Pages 1, 7

TRC = 1.41

Revision 2

Executive Summary - Page 4

Table 3

For the following annual program costs for Residential DR – Direct Load Control:

- Replace \$637,326 with \$656,639 in 2008
- Replace \$851,820 with \$756,114 in 2009
- Replace \$1,087,386 with \$876,760 in 2010

For the following annual program costs for AIU Total:

- Replace \$9,967,083 with \$9,986,396 in 2008
- Replace \$20,662,955 with \$20,567,248 in 2009
- Replace \$31,803,964 with \$31,593,338 in 2010

ANNUAL PROG	RAM COSTS	2008	2009	2010
DR	Commercial Demand Credit	\$51,452	\$102,617	\$151,444
	Residential DR - Direct Load Control	\$656,639	\$756,114	\$876,760
DR Program To	tal	\$708,091	\$858,731	\$1,028,203
EE	Home Energy Performance	\$249,968	\$631,4 <del>9</del> 7	\$841,996
	ENERGY STAR Homes Program	\$0	\$0	\$0
	Residential HVAC Diagnostics & Tune-Up	\$0	\$773,605	\$1,547,209
	Residential Appliance Recycling	\$787,500	\$2,887,500	\$4,725,000
	Residential Lighting & Appliances	\$1,164,261	\$2,646,047	\$5,292,094
	Residential Multifamily	\$262,684	\$394,025	\$394,025
	Residential Low Income	\$0	\$0	\$0
	Residential New HVAC	\$125,665	\$565,491	\$1,130,982
	C&I Prescriptive	\$3,499,239	\$6,267,293	\$8,356,391
	C&I Retro-commissioning	\$192,206	\$461,294	\$717,569
	Commercial New Construction	\$0	\$72,000	\$324,000
	Street Lighting	\$520,000	\$520,000	\$520,000
	C&ł Custom	\$561,784	\$1,449,765	\$2,355,869
EE Program To	tal	\$7,363,305	\$16,668,518	\$26,205,135
Portfolio-Wide Co	osts			
	Education Program	\$260,000	\$400,000	\$500,000
	Evaluation, Measurement and Verification	\$420,000	\$840,000	\$1,260,000
	Information Program	\$260,000	\$400,000	\$500,000
	Portfolio Administration	\$975,000	\$1,400,000	\$2,100,000
Portfolio-Wide	Cost Total	\$1,915,000	\$3,040,000	\$4,360,000
AIU Total		\$9,986,396	\$20,567,248	\$31,593,338

Revision 3 Introduction - Page 17 Table 6

### For Total Cost:

- Replace \$27.7 with \$27.6 in 2009
- Replace \$42.7 with \$42.5 in 2010

# For Ameren Illinois Utilities' Share:

- Replace \$20.7 with \$20.6 in 2009
- Replace \$31.8 with \$31.6 in 2010
- Replace 75% with 74% in 2009
- Replace 75% with 74% in 2010

## For DCEO Share:

- Replace 25% with 26% in 2009
- Replace 25% with 26% in 2010

	2008	2009	2010
MWH Target	76,967	155,153	234,457
Ameren Illinois Share	62,808	126,273	190,853
	82%	81%	81%
DCEO Share	14,159	29,062	44,387
	18%	19%	19%
Acquired from Municipal	13,932	28,361	43,054
Government and Schools	18%	18%	18%
Low Income Share (included	227	701	1,334
within DCEO share)	0%	0%	1%
Total Cost, \$Million	\$13.3	\$27.6	\$42.5
Ameren Illinois Share	\$10.0	\$20.6	\$31.6
	75%	74%	74%
DCEO Share	\$3.3	\$7.0	\$10.9
	25%	26%	26%
Acquired from Municipal	\$2.1	\$4.6	\$7.2
Government and Schools	16%	17%	17%
Low Income Share (included	\$0.8	\$1.7	\$2.7
within DCEO share)	6%	6%	6%

# Revision 4

Ameren Illinois Utilities' Portfolio – Page 36 Table 12

As per the above mentioned revisions, replace the following:

- Annual program costs and TRC for Residential DR Direct Load Control Annual program costs for Residential Solutions Total Annual program costs for Ameren Total Annual program costs and TRC for Grand Total

		TOTA	TOTAL ANNUAL MWH	-	T <sub>o</sub>	Total Annual kW		ANNU	AMNUAL PROGRAM COSTS		
	Program Element	2008	2009	2010	2008	2009	2010	2008	2009	2010	
Residential	Home Energy Performance	985	2,513	3,351	25	143	190	\$249,968	\$631,497	\$841,996	1.76
	Residential HVAC Diagnostics & Tune-Up		1,812	3,624	ı	373	746	\$0	\$773,605	\$1,547,209	1.07
	Residential Appliance Recycling	2,426	8,897	14,559	374	1,372	2,244	\$787,500	\$2,887,500	\$4,725,000	1,15
	Residential Lighting & Appliances	10,086	22,923	45,845	178	406	811	\$1,164,261	\$2,646,047	\$5,292,094	1.68
	Residential Multifamily	2,792	4,189	4,189	481	722	722	\$262,684	\$394,025	\$394,025	1.48
	Residential New HVAC	343	1,543	3,086	88	396	798	\$125,665	\$565,491	\$1,130,982	1.14
	Residential DR - Direct Load Control	264	530	804	2,936	5,884	8,938	\$656,639	\$756,114	\$876,760	1.90
Residential Solutions Total	ons Total	16,907	42,406	75,458	4,114	9,298	14,450	\$3,246,715	\$8,654,279	\$14,808,066	
Business	C&I Prescriptive	35,276	63,182	84,242	8,355	14,965	19,953	\$3,499,239	\$6,267,293	\$8,356,391	1.37
	C&I Retro-commissioning	513	1,230	1,914	12	8	47	\$192,206	\$461,294	\$717,569	1.40
	Commercial New Construction	•	102	458	•	æ	147	0\$	\$72,000	\$324,000	1.12
	Street Lighting	4,249	4,249	4,249		1	•	\$520,000	\$520,000	\$520,000	1.93
,	C&I Custom	5,817	15,012	24,395	756	1,952	3,171	\$561,784	\$1,449,765	\$2,355,869	1.90
	Commercial Demand Credit	47	93	137	2,328	4,642	6,851	\$51,452	\$102,617	\$151,444	2.50
Business Solutions Total	is Total	45,901	83,867	115,395	11,452	21,621	30,169	\$4,824,681	\$8,872,970	\$12,425,272	
Portfolio-Wide Costs	м										
	Education Program							\$260,000	\$400,000	\$500,000	
	Evaluation, Measurement and Verification						-	\$420,000	\$840,000	\$1,260,000	
	Information Program						-	\$260,000	\$400,000	\$500,000	
	Portfolio Administration							\$975,000	\$1,400,000	\$2,100,000	
Portfolio-Wide Cost Total	st Total							\$1,915,000	\$3,040,000	\$4,360,000	
Ameren Total		62,808	126,273	190,853	15,566	30,919	44,619	\$9,986,396	\$20,567,248	\$31,593,338	
DCEO	DCEO Public Sector Prescriptive	10,653	23,501	33,668	2,352	5,190	7,435	\$1,649,859	\$3,643,281	\$5,193,914	1.62
	DCEO Public Sector Customized Program	1,557	2,625	5,227	1	,	•	\$259,458	\$463,630	\$860,900	3.04
	DCEO Public Retrocommissioning	682	798	1,589	9	2	13	\$77,837	\$78,759	\$130,677	4.47
	DCEO Lights for Learning	933	1,436	1,833	,		•	\$103,783	\$157,519	\$209,083	2.74
	DCEO Low Income New Const. Gut Rehab	,	284	479		•	,	\$396,144	\$666,567	\$1,188,115	0.59
	DCEO Low Income EE Moderate Rehab (MF)			275		ı	•	\$0	\$404,033	\$534,727	0.50
	OCEO Single Family Rehab	,	72	121		•	1	\$164,324	\$272,770	\$456,324	0.32
	DCEO Low Income Direct Install	227	345	428	•	,	•	\$268,107	\$404,035	\$534,730	0.63
	DCEO Smart Energy Design Assistance Program	,	,	,		•	,	\$285,404	\$472,556	\$574,978	•
	DCEO Manufacturing Energy Efficiency Program	•		,		į	1	\$25,946	\$52,506	\$104,542	•
	DCEO Building Industry Training & Education			ı		ı	,	\$114,985	\$166,130	\$299,231	'
	DCEO Public Sector New Construction	1		737	•	ŀ	1	\$0	\$262,531	\$784,062	4.52
DCEO Total		14,159	29,062	44,387	2,359	5,196	7,448	\$3,345,847	\$7,044,317	\$10,871,281	
Grand Total		76,967	155,335	235,240	17,925	36,115	52,067	\$13,332,244	\$27,611,566	\$42,464,619	1,41

Revision 5
Ameren Illinois Utilities' Portfolio – Pages 102-104
Replace Residential Direct Load Control template (attached)

# STATE OF ILLINOIS ILLINOIS COMMERCE COMMISSION

Ameren Ex. 9.4

CENTRAL ILLINOIS LIGHT COMPANY d/b/a AmerenCILCO	)	
CENTRAL ILLINOIS PUBLIC SERVICE COMPANY d/b/a AmerenCIPS	) ) ) Dealest No. 07.052	^
ILLINOIS POWER COMPANY d/b/a AmerenIP	) Docket No. 07-053	y
Approval of the Energy Efficiency and Demand-Response Plan	) ) )	

### **ERRATA**

The Ameren Illinois Utilities<sup>1</sup> hereby submit this Errata to Ameren Exhibit 4.0 sponsored by Val R. Jensen, filed on November 15, 2007. The corrections to Mr. Jensen's testimony are as follows:

- 1. Page 17, continuation of Table 3, Line 359. In the first column labeled "Residential Measures," strike "High Efficiency Furnaces" at the end of that column.
- 2. Page 17, continuation of Table 3, Line 359. In the second column labeled "Commercial Measures," add to the bottom of the column, "Standard T8 to Super T8 linear fluorescent lamps."
- 3. Page 35, line 757, strike the number "1,000" and replace it with the number "583."

<sup>&</sup>lt;sup>1</sup> The Ameren Illinois Utilities are Central Illinois Light Company d/b/a AmerenCILCO, Central Illinois Public Service Company d/b/a AmerenCIPS and Illinois Power Company d/b/a AmerenIP.

Dated: January 3, 2008

CENTRAL ILLINOIS LIGHT COMPANY d/b/a AmerenCILCO, CENTRAL ILLINOIS PUBLIC SERVICE COMPANY d/b/a AmerenCIPS, ILLINOIS POWER COMPANY d/b/a AmerenIP

# by: /s/ Laura M. Earl

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# CERTIFICATE OF SERVICE

I, Laura M. Earl, certify that on January 3, 2008, I served a copy of the foregoing Errata by electronic mail to the individuals on the Commission's Service List for Docket 07-0539.

/s/ Laura M. Earl
Laura M. Earl
Attorney for the Ameren Illinois Utilities